



# **Team Synergy**

**Fahad Al-Emam  
Kristin Hermann  
Joe Riley  
Rung-Yu Tseng  
Evan Zasoski**



# Team Synergy's Vision:

---

- To design a timeless pediatric care system and environment beyond the technologies and resources of today.
  - Designing for the Future
  - Patient Privacy
  - Meeting Population Demands
  - Patient Environment
  - Continuity of Care

# Design for the future

- **Principle:** Design should be timeless while also exceeding the present requirement & technology.
- **Problems:**
  - Electrical system was outdated, causing compatibility issues with new machinery.
  - Current infrastructure limits the ability to expand to meet the needs of the population.
- **Evidence:**
  - Nirit Putievsky Pilosof(2005). Planning for Change: Hospital Design Theories in Practice. AIA Academy Journal.
    - “This is remarkable, given that most hospital structures were typically designed to last 50 to 100 years.”
    - “New medical technologies, too, have changed society’s expectations of hospital environments.”

# Patient Privacy

- **Principle:** Continuous provision of patient privacy throughout their visit.
- **Problems:**
  - Limited family counseling space
  - Lack of private bathroom
  - Small ER room leads patients & families to wait in the hallway
- **Evidence:**
  - Helford Hospital at City of hope incorporates patient input in design
    - Patient rooms provide adjoined bathrooms for patients in each room providing a measure of privacy that is needed by patients.
    - Patient movement is also accommodated in the “privacy design”. Patients are transported in a private corridor that only staff members share.

# Meeting the Demand (1 of 2)



- **Principle:** Increase access to targeted services & adjust the care model to efficiently meet the demands of the population.
- **Problems:**
  - Inability of population to pay
  - Population misuse of Hospital services
  - Appropriate levels of care for patient needs
  - Increasing population capacity for core services (Sickle Cell, Asthma, ED, Child Advocacy, Immediate Care)
- **Evidence:**
  - Retail Health Clinic Passing Trend or Disruptive Innovation? ~ Molly Freeman (Fall 2007 HSI degree candidate). Summer 2007.
    - Lack of Primary Care Physicians
      - It is predicted that there will be a shortage of almost 100,000 primary care physicians by 2020 [AMA]
    - Aging Physicians
      - In 1980, about 50% of all physicians were over 45, in 2005, about 65% of all physicians are over 45

# Meeting the Demand. (2 of 2)



## • Evidence Cont...

- MinuteClinic Recognized for Bringing Innovation in Health Care Delivery to New England; -- Connecticut Award Cites Retail Health Care Leader for Performance Excellence --PR Newswire. New York: Jul 2, 2007.
  - MinuteClinic (CVS) has received the 2007 Connecticut Quality Improvement Award
  - MinuteClinic is an example of how creativity and innovation can be brought to our struggling health care system to affect change and make basic care more accessible and affordable for today's consumer" ~Michael C. Howe, MinuteClinic CEO

Retail Health Clinics	Traditional Physicians
Expanded hours – open nights and weekends	Standard business hours only
Standardized prices posted on “menu” of services provided (typically \$30 to \$90 per incident)	Price variation depending on third-party payor price negotiations, co-pays, deductibles and charges set by provider (typically more than \$150 per visit)
Care provided by PAs or NPs trained to provide the basic services offered by the clinics with physician oversight	Care provided by physicians highly trained to deal with a variety of situations, often with in-depth specialty training
Clinicians aided by decision support software to ensure standardized, accurate diagnoses and care	Physicians rely on personal knowledge
Patients treated in fewer than 15 minutes. Wait times depend on demand.	Wait times often exceed one hour to see the physician for 10-15 minutes
Pharmacy on-site	Filling prescriptions requires going to a different location
Only routine conditions treated (infections, vaccinations, pregnancy tests)	Full services provided
Insurance accepted if claims can be filed online – co-pays often waived	Most insurance plans accepted

# Patient Environment

- **Principle:** Create an environment conducive to effective healing for patients.
- **Problems:**
  - Current rooms are outdated, and lack of warm environment that is critical to helping children heal.
- **Evidence:**
  - **The Role of the Physical Environment in the Hospital of the 21<sup>st</sup> Century: A Once-in-a-Lifetime Opportunity**
    - Ulrich, Quan, Zimring, Joseph, Choudhary

# Continuity of Care

## (1 of 2)

- **Principle:** Create an efficient physical and organizational infrastructure to reduce patient transfers and promote continuity in care.
- **Problems:**
  - Frequent patient transfers cause delay in care
  - Disconnected care teams decrease the quality of care and reduce the patient's involvement
- **Evidence:**
  - **“The Role of the Physical and Social Environment in Promoting Health, Safety, and Effectiveness in the Healthcare Workplace” - *Anjali Joseph***
    - Creating a physical environment that promotes teamwork and communication can reduce medical errors and increase patient and care giver satisfaction.
    - Eco-diversity, Spatial Transparency, Functional Inconvenience, Human Scale, Neutral Zones



# Continuity of Care (2 of 2)

- **“Patient Safety and Nursing: Transferring the Work Environment with Technology” – McKesson**
  - Having hospital-wide access to automated patient records ensures patient information is always available for all caregivers on the team.
  - “Clinical information technology enables workflow changes that streamline the care process and make it easier for clinical professionals to work together.”
- **Ohio State University Medical Center**
  - Acuity adaptable rooms
  - “Reducing or eliminating transfers significantly decreases the potential for medication errors, lost belongings, and patient confusion or unease.”

